

## Claims

- [c1] What is claimed is:
- 1.A method for recording power failure time of a computer system, the computer system comprising:
- a power supply for generating a power signal;
  - a first memory for recording data; and
  - a processor for processing data comprising:
    - a power port connected to the power supply for receiving the power signal;
    - an input port for receiving a power good signal; and
    - an output port connected to the first memory for outputting the power failure time of the computer system to the first memory;
- the method comprising following step:
- (a)when the input port of the processor does not receive the power good signal, and the power signal has dropped below a threshold voltage , then the processor writes a first power failure time and a first check number into the first memory, the first check number being calculated by using the first power failure time.
- [c2] 2.The method of claim 1 wherein the memory is a non-volatile RAM (random access memory).
- [c3] 3.The method of claim 1 wherein the first power failure time and the first check number are written into the first memory before the power signal drops to a minimum operation voltage of the processor, the threshold voltage being above the minimum operation voltage.
- [c4] 4.The method of claim 1 further comprising following step:
- (b)if the power good signal is still not received, and the power signal is still below the threshold voltage, then the processor writes a second power failure time and a second check number into the first memory, the second check number being calculated by using the second power failure time.
- [c5] 5.The method of claim 1 further comprising following step:
- (c)after the processor is reset, the power failure time corresponding to a selected check number is read out from the first memory in the memory and is

written into a second memory.

- [c6] 6.The method of claim 1 further comprising following step:  
(d)writing a power back time into a second memory after the processor is reset.
- [c7] 7.The method of claim 6 wherein the power failure time and the power back time are written according to a real time clock (RTC).
- [c8] 8.The method of claim 7 wherein the real time clock is provided by a component selected from a group consisting of a processor and a south bridge.
- [c9] 9.The method of claim 1 wherein the power signal is a standby power signal.
- [c10] 10.The method of claim 1 wherein the computer system further comprises a logic circuit for generating the power good signal, the input port of the processor being connected to the logic circuit for receiving the power good signal.
- [c11] 11.A computer system comprising:  
a power supply for generating a power signal;  
a first memory for recording data; and  
a processor for processing data comprising:  
a power port connected to the power supply for receiving the power signal;  
an input port for receiving a power good signal; and  
an output port connected to the first memory for outputting the power failure time of the computer system to the first memory;  
wherein when the input port of the processor does not receive the power good signal, and the power signal has dropped below a threshold voltage , then the processor writes a first power failure time and a first check number into the firstmemory, the first check number being calculated by using the first power failure time.
- [c12] 12.The computer system of claim 11 wherein the memory is a non-volatile RAM (random access memory).
- [c13] 13.The computer system of claim 11 wherein the first power failure time and the first check number are written into the first memory before the power signal

drops to a minimum operation voltage of the processor, the threshold voltage being above the minimum operation voltage.

[c14] 14.The computer system of claim 11 wherein if the power good signal is still not received, and the power signal is still below the threshold voltage, then the processor writes a second power failure time and a second check number into the first memory, the second check number being calculated by using the second power failure time.

[c15] 15.The computer system of claim 11 wherein after the processor is reset, the power failure time corresponding to a selected check number is read out from the first memory in the memory and is written into a second memory.

[c16] 16.The computer system of claim 11 wherein after the processor is reset, a power back time is written into a second memory.

[c17] 17.The computer system of claim 16 wherein the power failure time and the power back time are written according to a real time clock (RTC).

[c18] 18.The computer system of claim 17 wherein the real time clock is provided by a component selected from a group consisting of a processor and a south bridge.

[c19] 19.The computer system of claim 11 wherein the power signal is a standby power signal.

[c20] 20.The computer system of claim 11 further comprising a logic circuit for generating the power good signal, the input port of the processor being connected to the logic circuit for receiving the power good signal.